

**Claims**

1. Method for determining spherical aberration in a light beam (2), including the steps of:

- 5 - splitting the light beam (2) into at least two partial light beams (20, 21, 22, 23, 24, 25);
- focusing the partial light beams (20, 21, 22, 23, 24, 25) onto respective detectors (11, 12, 13, 16, 17, 18), whereby at least one signal (A, B, C, D) generated by the detectors (12, 13, 16, 17, 18) depends on the positions of the respective partial light beam (21, 22, 23, 24, 25); and
- 10 - determining the spherical aberration using the signals (A, B, C, D) generated by the detectors (12, 13, 16, 17, 18);
- characterized** in that a hologram (15) is provided for splitting the light beam (2) into the partial light beams (20, 23, 24, 25).
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2. Method according to claim 1, **characterized** in that a plurality of wavefront patterns are stored in the hologram (15).

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3. Method according to claim 1 or 2, **characterized** in that the partial beams (23, 24, 25) are focused onto the respective detectors (16, 17, 18) in dependence on the amount of spherical aberration in the light beam (2).

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4. Device for determining spherical aberration in a light beam (2), **including**:

- a hologram (15) for splitting the light beam (2) into at least two partial light beams (20, 23, 24, 25);

30 - focusing means (8) for focusing the partial light beams (20, 23, 24, 25) onto respective detectors (11, 16, 17, 18); and

- a signal processor (14) for determining the spherical aberration using the signals (A, B, C) generated by the detectors (16, 17, 18).

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5. Device according to claim 4, **wherein** a plurality of wavefront patterns are stored in the hologram (15)

6. Device according to claim 4 or 5, **wherein** the partial  
5 beams (23, 24, 25) are focused onto the respective detectors (16, 17, 18) in dependence on the amount of spherical aberration in the light beam (2).

7. Apparatus for reading from and/or writing to optical  
10 recording media, **characterized** in that it uses a method according to anyone of claims 1 to 3 or comprises a device according to claim 4 to 6 for determining spherical aberration.